RAW SEQUENCE LISTING

DATE: 07/07/2001

PATENT APPLICATION: US/09/886,856

TIME: 13:08:58

Input Set : A:\PTO.txt

Output Set: N:\CRF3\07062001\1886856.raw

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		<140>							•			/886	, 856					
C>		<141>										- 0 4						
		<150>									213,	504			1			EREL
		<151>									264	E 7 2					A 8	
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		<211>																
		<211>				* _												
		<213>				Bos	tan	ruc										
		<220>				DOS	cuu	Lus										
		<221>				CDS												
		<222>		-			(441)										
		<400>						,										
		cca g					gat	aaa	aaa	tcc	aaa	acc	ttc	cca	cca	qqq	cac	48
		Pro A																
	37					5	-	_	_		10					15		
	39	ttc a	aa d	gat	cca	aaa	cga	cta	tat	tgt	aaa	aac	ggg	ggg	ttc	ttc	cta	96
		Phe L																•
	41				20					25					30			
	43	cga a	tc o	cac	cca	gat	ggg	cga	gta	gat	ggg	gta	cga	gaa	aaa	tcc	gat	144
*	44	Arg I	le E	His	${\tt Pro}$	Asp	Gly	Arg	Val	Asp	Gly	Val	Arg	Glu	Lys	Ser	Asp	
	45			35					40					45				
		cca c																192
		Pro H		Ile	Lys	Leu	Gln		Gln	Ala	Glu	Glu	_	Gly	Val	Val	Ser	
	49		50					55					60					
		atc a																240
		Ile L	ys (Gly	Val	Cys		Asn	Arg	Tyr	Leu		Met	Lys	Glu	Asp		
	53	65					70					75					80	000
		cga c																288
		Arg L	eu 1	Leu	Ата		Lys	Cys	vaı	Thr	_	GLu	Cys	Pne	Pne		GLu	
	57					85					90					95	+	.226
		cga c	_	_	,							-						336
		Arg L	eu (Asn	ASN	ryr	ASN		Tyr	arg	ser	Arg		туr	ser	-
	61	t ac ±	~~ <u> </u>		100	~~~	at a		000	105	~~~	022	+ - +	222	110	~~~	aa2 ,	384
		tcc to																304
	65	Ser T	_	115	ναΙ	HIG	ьeu	гЛЯ	_	TIII	ату	GIII	тАт	LуS 125	neu	стХ	PIO	
	0.5		4	ттэ		•			120					147				

67 aaa acc ggg cca ggg caa aaa gcc atc cta ttc cta cca atg tcc gcc

432

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/886,856

DATE: 07/07/2001 TIME: 13:08:58

Input Set : A:\PTO.txt
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78 <212> TYPE: PRT 79 <213> ORGANISM: Bos taurus	
81 <400> SEQUENCE: 2	
82 Pro Ala Leu Pro Glu Asp Gly Gly Ser Gly Ala Phe Pro Pro Gly His	
83 1 5 10 15	
84 Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn Gly Gly Phe Phe Leu 85 20 25 30	: '
86 Arg Ile His Pro Asp Gly Arg Val Asp Gly Val Arg Glu Lys Ser Asp 87 35 40 45	
88 Pro His Ile Lys Leu Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser	
89 50 55 60	
90 Ile Lys Gly Val Cys Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp Gly 91 65 70 75 80	
92 Arg Leu Leu Ala Ser Lys Cys Val Thr Asp Glu Cys Phe Phe Glu	
93 85 90 95	
94 Arg Leu Glu Ser Asn Asn Tyr Asn Thr Tyr Arg Ser Arg Lys Tyr Ser	
95 100 105 110	
96 Ser Trp Tyr Val Ala Leu Lys Arg Thr Gly Gln Tyr Lys Leu Gly Pro 97 115 120 125	
98 Lys Thr Gly Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala	
99 130 135 140	•
100 Lys Ser	
101 145 104 <210> SEQ ID NO: 3	
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106 <212> TYPE: DNA	
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110 <221> NAME/KEY: CDS 111 <222> LOCATION: (1)(441)	
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115 Pro Ala Leu Pro Glu Asp Gly Gly Ser Gly Ala Phe Pro Pro Gly His	
116 1 5 10 15 15 118 ttc aag gac ccc aag cgg ctg tac tgc aaa aac ggg ggc ttc ttc ctg	96
119 Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn Gly Gly Phe Phe Leu	50
120 20 25 30	
122 ege ate cae eee gae gge ega gtt gae ggg gte egg gag aag age gae	144
123 Arg Ile His Pro Asp Gly Arg Val Asp Gly Val Arg Glu Lys Ser Asp	
124 35 40 45 126 cct cac atc aag cta caa ctt caa gca gaa gag aga ggt gtg tct	192
127 Pro His Ile Lys Leu Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser	1,2

RAW SEQUENCE LISTING DATE: 07/07/2001 PATENT APPLICATION: US/09/886,856 TIME: 13:08:58

Input Set : A:\PTO.txt

Output Set: N:\CRF3\07062001\1886856.raw

128		50					55					60					
130	atc	aaa	gga	gtg	tgt	gct	aac	cgt	tac	ctg	gct	atg	aag	gaa	gat	gga	240
															Asp		
132	65					70					75					80	
134	aga	tta	ctg	gct	tct	aaa	tgt	gtt	acg	gat	gag	tgt	ttc	ttt	ttt	gaa	288
135	Arg	Leu	Leu	Ala	Ser	Lys	Cys	Val	Thr	Asp	Glu	Cys	Phe	Phe	Phe	Glu	
136	_				85	_	_			90					95		
138	cga	ttg	gaa	tct	aat	aac	tac	aat	act	tac	cgg	tca	agg	aaa	tac	acc	336
139	Arg	Leu	Glu	Ser	Asn	Asn	Tyr	Asn	Thr	Tyr	Arg	Ser	Arg	Lys	Tyr	Thr	
140	-			100			-		105					110			
142	agt	tgg	tat	gtg	gca	ctg	aaa	cga	act	ggg	cag	tat	aaa	ctt	gga	tcc	384
															Gly		
144			115					120					125				
146	aaa	aca	gga	cct	ggg	cag	aaa	gct	ata	ctt	ttt	ctt	cca	atg	tct	gct	432
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151	Lys	Ser	*								•						
152	145																
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163	Phe	Lys	Asp	${\tt Pro}$	Lys	Arg	Leu	Tyr	Cys	Lys	Asn	Gly	Gly	Phe	Phe	Leu	
164				20					25					30			
165	Arg	Ile	His	${\tt Pro}$	Asp	Gly	Arg	Val	Asp	Gly	Val	Arg	Glu	Lys	Ser	Asp	
166			35					40					45				
167	Pro	His	Ile	Lys	Leu	Gln	Leu	Gln	Ala	Glu	Glu	Arg	Gly	Val	Val	Ser	
168		50					55					60					
169	Ile	Lys	Gly	Val	Cys	Ala	Asn	Arg	\mathtt{Tyr}	Leu	Ala	Met	Lys	Glu	Asp	Gly	
170						70					75					80	
	Arg	Leu	Leu	Ala		Lys	Cys	Val	Thr	Asp	Glu	Cys	Phe	Phe	Phe	Glu	
172					85					90					95		
	Arg	Leu	Glu		Asn	Asn	\mathtt{Tyr}	Asn		Tyr	Arg	Ser	Arg		Tyr	Thr	
174				100					105					110		_	
		_												Leu	Gly	Ser	
176			115										125				
			Gly	Pro	Gly	Gln		Ala	Ile	Leu	Phe		Pro	Met	Ser.	Ala	
178		130					135					140					
	Lys	Ser						•									
180					_												
			EQ II														
			ENGTE		8						•						
			PE:														
			RGANI		ROS	tauı	us										
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DATE: 07/07/2001 TIME: 13:08:58 RAW SEQUENCE LISTING PATENT APPLICATION: US/09/886,856

Input Set : A:\PTO.txt
Output Set: N:\CRF3\07062001\1886856.raw

		1> NA														•	
		2> L((4	168)										
		0> SI				2+4	200	200	ata	999	~~~	ata		a a a	a a t	aaa	48
		gca Ala															40
195	met 1	ніа	Ala	СТУ	5	116	1111	TIIT	цец	10	AId	пец	110	Gru	15	Gry	
	-	tcc	aaa	acc	_	cca	cca	aaa	cac		aaa	αat.	cca	aaa		cta	96
		Ser		-													
199	1		1	20				1	25		1			30	, ,		
	tat	tgt	aaa	aac	ggg	ggg	ttc	ttc	cta	cga	atc	cac	cca	gat	ggg	cga	144
		Cys															
203	_	_	35			_		40					45				
205	gta	gat	ggg	gta	cga	gaa	aaa	tcc	gat	cca	cac	atc	aaa	cta	caa	cta	192
206	Val	Asp	Gly	Val	Arg	Glu	Lys	Ser	Asp	Pro	His	Ile	Lys	Leu	Gln	Leu	
207		50					55					60					
		gcc															240
		Ala	Glu	Glu	Arg		Val	Val	Ser	Ile		GLy	Val	Cys	Ala		
211	65					70					75					80	200
		tat -															288
	Arg	Tyr	Leu	Ala		Lys	GLu	Asp	GLY		Leu	Leu	Ата	ser		Cys	
215					85				~	90	a+ a	~~~	+ ~ ~		95	+ - +	336
	_	acc Thr	_	_	_				_	_		-					330
218	vaı	THE	ASP	100	Cys	Pile	Pne	Pile	105	AIG	Leu	GIU	Ser	110	ASII	тут	
	220	acc	tat		taa	cas	222	tat		too	taa	tat	αta		cta	aaa	384
		Thr		_		-											304
223	ASII	1111	115	пту	DCI	MIG	DyS	120	001	JCI	P	- 1 -	125		шси	2,0	
	cαa	acc		caa	t.at.	aaa	cta		сса	aaa	acc	aaa		aga	caa	aaa	432
	_	Thr															
227	5	130	1		-1-	-1-	135	1		4		140		_		-	
229	gcc	atc	cta	ttc	cta	cca	atg	tcc	gcc	aaa	tcc	taa					468
230	Ala	Ile	Leu	Phe	Leu	Pro	Met	Ser	Ala	Lys	Ser	*					
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234	<210)> SI	EQ II	ON C	6.					•							
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		2> TY															
		3> OF				tauı	cus										
)> SE							_	_ ,		_	_		_		
		Ala	Ala	GLY	Ser	IIe	Thr	Thr	Leu		Ala	Leu	Pro	Glu		GLY	
241		_	~ 1		5	D	D	a 1	***	10	T	3	D •	T	15	Т о	
	СТА	Ser	GIY		Pne	PLO	Pro	GLY		Pne	гаг	ASP	PTO		AIG	Leu	
243	Пих	Cys	T 110	20	C111	C111	Dho	Dho	25	λrα	Tlo	Uic	Dro	30	Clv	Δra	
245	тАт	Cys	цуs 35	ASII	GTÄ	СТА	PHE	40	цец	AIG	TIE	птэ	45	изр	GLY	Arg	
	Va 1	Asp		Val	Δra	Glu	T.v.c		Δen	Pro	Hic	Tle		T.eu	Gln	Len	
247	, u <u> </u>	50	O T Y	vu.	ar 9	JIU	55	JC1	-135	110		60	275	Lou	U-11		
	Gln	Ala	Glu	Glu	Arσ	Glv		Val	Ser	Ile	Lvs		Val	Cvs	Ala	Asn	
249					9	70					75	1		- 4		80	
		Tyr	Leu	Ala	Met	Lys	Glu	Asp	Gly	Arg	Leu	Leu	Ala	Ser	Lys	Cys	
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/886,856

DATE: 07/07/2001 TIME: 13:08:58

Input Set : A:\PTO.txt
Output Set: N:\CRF3\07062001\1886856.raw

251					85					90					95		
252	Val	Thr	Asp	Glu	Cys	Phe	Phe	Phe	Glu	Arg	Leu	Glu	Ser	Asn	Asn	Tyr	
253			_	100	_				105	_				110			
254	Asn	Thr	Tyr	Arg	Ser	Arg	Lys	Tyr	Ser	Ser	Trp	Tyr	Val	Ala	Leu	Lys	
255			115	_				120					125				
256	Arg	Thr	Gly	Gln	Tyr	Lys	Leu	Gly	Pro	Lys	Thr	Gly	Pro	Gly	Gln	Lys	
257	_	130	-		-	-	135	_		_		140					
258	Ala	Ile	Leu	Phe	Leu	Pro	Met	Ser	Ala	Lys	Ser						
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274	1				5					10					15		
276	ggc	agc	ggc	gcc	ttc	ccg	ccc	ggc	cac	ttc	aag	gac	CCC	aag	cgg	ctg	96
277	Gly	Ser	Gly	Ala	Phe	Pro	${\tt Pro}$	Gly	His	Phe	Lys	Asp	Pro	Lys	Arg	Leu	
278				20					25					30			
		tgc															144
281	Tyr	Cys	Lys	Asn	Gly	Gly	Phe	Phe	Leu	Arg	Ile	His	Pro	Asp	Gly	Arg	
282			35					40					45				
		gac															192
285	Val	Asp	Gly	Val	Arg.	Glu	Lys	Ser	Asp	Pro	His	Ile	Lys	Leu	Gln	Leu	
286		50					55					60					
		gca															240
		Ala	Glu	Glu	Arg	_	Val	Val	Ser	Ile	-	Gly	Val	Cys	Ala		
290	65					70					75					80	
		tac															288
	Arg	Tyr	Leu	Ala		Lys	Glu	Asp	Gly		Leu	Leu	Ala	Ser		Cys	
294					85					90					95		226
		acg															336
	Val	Thr	Asp		Cys	Phe	Phe	Phe		Arg	Leu	Glu	Ser		Asn	Tyr	
298				100					105					110			204
		act															384
	Asn	Thr		Arg	ser	Arg	ьуs		Thr	ser	ттр	туг		Ата	ьeu	Lys	
302			115					120					125				422
		act															432
	Arg	Thr	GIY	GIn	Tyr	Lys		GTĀ	ser	ьуs	Thr		Pro	GIY	GIn	ьуs	
306		130		4-4-4	_4.+		135			·		140					A 7 A
		ata											בנננ	.ad			474
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	145)	70 T	N 100		150					155						÷
)> SE															
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/886,856

DATE: 07/07/2001

TIME: 13:08:59

Input Set : A:\PTO.txt
Output Set: N:\CRF3\07062001\1886856.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date